



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER OF PATENTS AND TRADEMARKS
Washington, D.C. 20231
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/916,270	07/30/2001	Hsin-Yu Kuo	4425-167	8682

7590 12/18/2002

LOWE HAUPTMAN
GILMAN & BERNER, LLP
Suite 310
1700 Diagonal Road
Alexandria, VA 22314

EXAMINER

PAIK, STEVE S

ART UNIT

PAPER NUMBER

2876

DATE MAILED: 12/18/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/916,270

Applicant(s)

KUO ET AL.

Examiner

Steven S. Paik

Art Unit

2876

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 30 July 2001.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-25 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-25 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 30 July 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____.
- 4) ☐ Interview Summary (PTO-413) Paper No(s) _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1-4 and 8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Harada et al. (USP 5,810,928) in view of Döing et al. (USP 6,468,424).

Re claims 1-4, Harada et al. discloses a method of measuring gas component concentrations of special material gases for semiconductor used in semiconductor production in an actual production process line (inline), and a semiconductor equipment and apparatus for supplying special material gases for semiconductor into which a gas component concentration meter utilizing the measuring method. The apparatus can prevent any accident such as erroneous connection, erroneous piping, or erroneous exchange from occurring. Furthermore, the invention provides an apparatus for supplying special material gases for semiconductor which can measure kinds, concentrations, and flow rates of component gases of a mixed gas flowing through a mixed gas pipe line so that the kind, concentration, and flow rate of each component gas supplied from a gas cylinder are checked and prevents any accident such as erroneous connection, erroneous piping, or erroneous exchange from occurring. The system comprises a controller (col. 1, ll. 10-22), a detector that identifies and measures the gas component and concentrations of special material gases for semiconductor (col. 2, ll. 43-65), and a plurality of alarm devices

Art Unit: 2876

receiving a message (signal, col. 3, ll. 9-13) from the controller (monitor). When any abnormality occurs (alarming function), the electromagnetic valve can be immediately closed. Although, Harada discloses the identical functions as claimed invention, his detecting device is not a bar-code scanner.

Döing et al. discloses a dialysis machine with a device for preparing dialysis solutions using a barcode as an identification code and a barcode reader as a detecting device. The identifiers (i.e. bar-codes) can be detected by the detecting device (i.e. bar-code reader). The barcodes used as identifiers make it possible to easily and reliably prepare dialysis solutions of different concentrations. Accordingly, this eliminates the need for preparing numerous standard solutions of different concentrations to make it possible to perform dialysis that is optimized to each patient's needs. In addition, the connectors or the area of a connecting tube near the connectors have identifiers (bar-codes) that can be detected by the detecting device to make it possible to safely prevent mistakes in allocation of storage containers to the connections of the device. The dialysis machine automatically detects the type and quality of solution in each storage container on the basis of the identifiers, which identify the storage containers, in such a way that definite identification is always possible regardless of the choice of connection. By automatically recognizing the connection, it performs the desired preparation on mixing operation accordingly through the switching of pumps or valves. It is therefore possible to safely avoid confusing the connections, which could endanger the patient, or preparing dialysis solutions with unwanted ingredients or quantities.

Therefore, it would have been obvious to an artisan of ordinary skill in the art at the time the invention was made to further substitute the barcodes as identifiers and the bar-code reader as

Art Unit: 2876

a detector device, as taught by D \ddot{o} ing et al. with the detector system of Harada et al. since the functions of identifying a material that can be mixed with another in a precise ratio according to a predetermined manner is identical. Both detecting device of Harada et al. and D \ddot{o} ing et al. provides the elimination of erroneous connections and mixing of special gases or solutions that results in improving productivity and safety. Furthermore, such substitution of a detecting device of using an infrared or ultraviolet detector with a bar-code reader using an infrared ray is fundamentally providing the same results, and therefore an obvious expedient.

Regarding claims 8, Harada et al. in view of D \ddot{o} ing et al. discloses the apparatus as recited in rejected claim 1 stated above, where the bar-code information comprises:

a material name (col. 3, ll. 26-32 of D \ddot{o} ing et al);

a material lot number (Figure 2 shows 2 different solution bags that can be considered as having a different material lot number);

a quantity of said material (col. 3, ll. 26-32 of D \ddot{o} ing et al);

an identification of said equipment material for checking of said controller (col. 3, ll. 26-32 and col. 4, ll. 1-12 of D \ddot{o} ing et al).

3. Claims 5-7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Harada et al. (5,810,928) as modified by D \ddot{o} ing et al. (USP 6,468,424) as applied to claims 1-4 above, and further in view of Bishay (USP 5,602,380).

Harada in view of D \ddot{o} ing et al. teaches all the features of claimed invention with the exception of specifically disclosing the connection of the transmission system comprises a wireless communication.

Art Unit: 2876

Bishay discloses a barcode reader that has a wireless connection which communicates via a wireless link (Figs 2-6) which inherently includes network equipments such as a router or a hub. A portable or wireless barcode reader provides its user portability and mobility to use the device. The feature allows the user to communicate data from and to a remote location

Thus, it would have been obvious to an artisan of ordinary skill in the art at the time the invention was made to further incorporate the barcodes that communicates using a wireless link as taught by Bishay in addition to the teachings of Harada et al. in view of D \ddot{o} ing et al. since the wireless barcode system allows a user to perform detecting functions with less limitations of physical locations.

4. Claims 9-25 are rejected under 35 U.S.C. 103(a) as being unpatentable over Harada et al. (5,810,928) as modified by D \ddot{o} ing et al. (USP 6,468,424) as applied to claims 1-4 above, and further in view of Pirelli (USP 5,537,313).

Re claims 9-12 and 14-25 Harada in view of D \ddot{o} ing et al. teaches all the features of claimed invention with the exception of specifically disclosing the collecting means for collecting a user's information.

Pirelli discloses a supply distribution chain involving items being received, stored, dispensed, and ultimately replaced. The distribution method involves using a central computer and at least one workstation for tracking inventory of a plurality of items. The workstation can also communicate with central computer wirelessly. These items could include medication, meals, office supplies, rental equipment, magazines, newspapers, candy, etc. The method comprises the steps of inputting to the central computer, item information for each item, inventory information for each item, user information for each user, and consumer information

Art Unit: 2876

for each consumer. The item information includes item name, item bar code, item cost, and item charge status. The inventory information includes number of items in inventory referenced to item name, item bar code, and item cost. The user information includes user name, user bar code, and user access data (col. 2, ll. 40-58). The chain system has a few advantages: First, it provides accurate information about its users and access level that keeps the record of each activity. It further provides an automated accounting and inventory system to manage cost and replenishment process efficiently.

Thus, it would have been obvious to an artisan of ordinary skill in the art at the time the invention was made to further incorporate the distribution chain system collecting user information and item (material) information, as taught by Pirelli in addition to the teachings of Harada et al. in view of D \ddot{o} ing et al. since the distribution chain system provides keeping accurate information regarding to its users and their activity with improved cost and replenishment process efficiency.

Regarding claims 13, Harada et al. as modified by D \ddot{o} ing et al as applied to claims 9-12 above, and further in view of Pirelli discloses the apparatus as recited in rejected claim 9 stated above, where the bar-code information comprises:

- a material name (col. 3, ll. 26-32 of D \ddot{o} ing et al);

- a material lot number (Figure 2 shows 2 different solution bags that can be considered as having a different material lot number);

- a quantity of said material (col. 3, ll. 26-32 of D \ddot{o} ing et al);

- an identification of said equipment material for checking of said controller (col. 3, ll. 26-32 and col. 4, ll. 1-12 of D \ddot{o} ing et al).

Art Unit: 2876

Conclusion

5. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Ahn et al. (USP 5,979,756) discloses a wafer cassette and equipment for semiconductor fabrication. The cassette includes a barcode label which contains wafers and loading and unloading information.

Sato et al. (USP 5,334,826) discloses a semiconductor laser control method and apparatus comprising a detection unit, a warning unit and a memory unit.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Steven S. Paik whose telephone number is 703-308-6190. The examiner can normally be reached on Mon - Fri (5:30am-2:00pm).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael G. Lee can be reached on 703-305-3503. The fax phone numbers for the organization where this application or proceeding is assigned are 703-746-6893 for regular communications and 703-308-7722 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-0530.

Steven Paik

Steven S. Paik
Examiner
Art Unit 2876

ssp
December 12, 2002


MICHAEL G. LEE
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2800